



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/424,059	11/18/1999	YOICHI NUNOKAWA	001560-376	7507

7590 12/17/2002

RONALD L GRUDZIECKI  
BURNS DOANE SWECKER & MATHIS  
PO BOX 1404  
ALEXANDRIA, VA 223131404

EXAMINER

TRUONG, TAMTHOM NGO

ART UNIT	PAPER NUMBER
----------	--------------

1624

DATE MAILED: 12/17/2002

22

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/424,059

Applicant(s)

NUNOKAWA ET AL.

Examiner

Tamthom N. Truong

Art Unit

1624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-13, 17-28, and 38-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-10, 17-25, and 38-41 is/are rejected.
- 7) ☒ Claim(s) 11-13 and 26-28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 21.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 1624

### DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on 9-17-02 and 10-15-02 have been entered.

Claim 15 has been cancelled. Thus, only claims 2-13, 17-28, and 38-41 remain for consideration.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2-10, 17-25, and 38-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following reasons apply:

a. Claims 38-41 recite methods of treatment based on mechanisms of action. Thus, it is unclear as to which specific disorders are treated. Based on references provided by applicants, the inhibition of NF- $\kappa$ B, and production of TNF- $\alpha$ , seems to treat a number of

Art Unit: 1624

similar diseases such as inflammatory, blood coagulation, tumor growth, etc. Therefore, it seems that these claims have overlapping scope.

- b. Claim 10 lacks antecedent basis because it recites the limitation of “the suppressing agent for the gene expression”, which is not recited in claim 38.
- c. Claim 25 lacks antecedent basis because it recites the limitation of “the suppressing agent for the gene expression”, which is not recited in claim 40.
- d. Claims 2-10, and 17-25 are rejected as being dependent on claims 38 and 40.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 3. Claims 2-9, 17-24, and 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Suntory Ltd.** (JP 62-286949 – cited on IDS) in view of **Vassalli** (cited on IDS) and **Baeuerle** (cited on IDS). Based on the English abstract, the JP’949 discloses benzoquinone derivatives as claimed herein. Only said derivatives are used to treat diseases such as: cerebral embolism, cerebral hemorrhage, senile dementia, Parkinson’s, etc. However, such a difference can be overcome by the teaching of Vassalli and Baeuerle. On page 439, in the CONCLUSION

section, Vassalli reveals that TNF exerts effects on hemorrhagic necrosis. Then, on the next page, Vassalli reveals that TNF acts on the brain. Complement to the teaching of Vassalli, Baeuerle relate NF- $\kappa$ B to various biological conditions such as: thrombin, platelet activating factor, hemorrhage, etc. Thus, given the relationship of TNF and NF- $\kappa$ B with hemorrhage and brain, one of the ordinary skill in the art would have been motivated to extend the use of the known benzoquinone derivatives to modulate the effect of TNF and NF- $\kappa$ B. Therefore, at the time of the invention, it would have been obvious to one skilled in the art to arrive at the claimed methods in view of the combined teachings above.

#### ***Claim Objections***

4. Claims 11-13 and 26-28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior arts of record do not teach the use of benzoquinone compounds in the treatment of inflammatory, autoimmune, or viral disease.

#### ***References in Specification***

5. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless

Art Unit: 1624

the references have been cited by the examiner on form PTO-892, they have not been considered.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamthom N. Truong whose telephone number is 703-305-4485. The examiner can normally be reached on M-F (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mukund Shah can be reached on 703-308-4716. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4556 for regular communications and 703-308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.



T. Truong

\*\*\*

December 12, 2002

*Brenda Coleman*  
BRENDA COLEMAN  
PRIMARY EXAMINER